Amendments to the Claims

Please cancel Claims 6, 14 and 22. Please amend Claims 1, 9, 17, 25 and 26. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Currently Amended) A computer method for converting an utterance representation into a response, the computer method comprising the steps of:

generating ~~a~~ an application specific goal derived from the utterance representation, wherein the application specific goal and the utterance representation are propositions comprising attribute-object-value triples, the proposition corresponding to the utterance representation being derived from a frame representation;

analyzing the utterance representation based on the application specific goal and a corresponding set of goal-directed rules to identify ambiguous information in the utterance representation or to generate a subgoal, each goal-directed rule representing a valid inference step from the goal-directed rule's condition to the application specific goal that may be taken in a domain associated with the application specific goal; and

generating a response based on the analysis of the utterance representation if ambiguous information is identified.

2. (Original) The computer method of Claim 1 wherein the step of analyzing the utterance representation comprises applying a goal-directed reasoning analysis based on the set of goal-directed rules to clarify the ambiguous information.

3. (Original) The computer method of Claim 2, wherein the step of analyzing the utterance representation comprises accessing data in a conversational record of related utterances to clarify the ambiguous information.

4. (Original) The computer method of Claim 2, wherein the step of generating the response comprises generating a question directed to a provider of the utterance representation to

clarify the ambiguous information, the question emerging from the analyzing of the utterance representation and requesting further information from the provider.

5. (Original) The computer method of Claim 1, wherein the step of generating the response comprises generating the computer application program command based on the utterance representation and based on the analysis of the ambiguous information.

6. Cancelled.

7. (Original) The computer method of Claim 1, wherein each goal-directed rule comprises a set of conditions and a set of actions, each condition consisting of a first proposition or a first script command and each action consisting of a second proposition or a second script command.

8. (Original) The computer method of Claim 1, wherein the response is a computer application program command based on the utterance representation.

9. (Currently Amended) An apparatus for converting an utterance representation into a response, comprising:

a database storing a set of goal-directed rules;

a digital processor coupled to the database, the digital processor hosting and executing a reasoning facility that is configured to:

generate a an application specific goal derived from the utterance representation, wherein the application specific goal and the utterance representation are propositions comprising attribute-object-value triples, the proposition corresponding to the utterance representation being derived from a frame representation;

analyze the utterance representation based on the application specific goal and the set of goal-directed rules in the database to identify ambiguous information in the utterance representation or to generate a subgoal, each goal-

directed rule representing a valid inference step from the goal-directed rule's condition to the application specific goal that may be taken in a domain associated with the application specific goal; and

    generate a response based on the analysis of the utterance representation if ambiguous information is identified.

10.   (Original) The apparatus of Claim 9 wherein the reasoning facility applies a goal-directed reasoning analysis based on the set of goal-directed rules to clarify the ambiguous information.

11.   (Original) The apparatus of Claim 10, wherein the reasoning facility accesses data in a conversational record of related utterances to clarify the ambiguous information.

12.   (Original) The apparatus of Claim 10, wherein the reasoning facility generates a question directed to a provider of the utterance representation to clarify the ambiguous information, the question emerging from the analysis of the utterance representation and requesting further information from the provider.

13.   (Original) The apparatus of Claim 9, wherein the reasoning facility generates the computer application program command based on the utterance representation and based on the analysis of the ambiguous information.

14.   Cancelled.

15.   (Original) The apparatus of Claim 9, wherein each goal-directed rule comprises a set of conditions and a set of actions, each condition consisting of a first proposition or a first script command and each action consisting of a second proposition or a second script command.

16.   (Original) The apparatus of Claim 9, wherein the response is a computer application program command based on the utterance representation.

17.   (Currently Amended) A computer program product comprising:

a computer usable medium for converting an utterance representation into a response; and

a set of computer program instructions embodied on the computer useable medium, including instructions to:

generate a an application specific goal derived from the utterance representation, wherein the application specific goal and the utterance representation are propositions comprising attribute-object-value triples, the proposition corresponding to the utterance representation being derived from a frame representation;

analyze the utterance representation based on the application specific goal and a corresponding set of goal-directed rules to identify ambiguous information in the utterance representation or to generate a subgoal, each goal-directed rule representing a valid inference step from the goal-directed rule's condition to the application specific goal that may be taken in a domain associated with the application specific goal; and

generate a response based on the analysis of the utterance representation if ambiguous information is identified.

18.   (Original) The computer program product of Claim 17 wherein the set of computer instructions comprises further instructions to apply a goal-directed reasoning analysis based on the set of goal-directed rules to clarify the ambiguous information.

19.   (Original) The computer program product of Claim 18, wherein the set of computer instructions comprises further instructions to access data in a conversational record of related utterances to clarify the ambiguous information.

20.   (Original) The computer program product of Claim 18, wherein the set of computer instructions comprises further instructions to generate a question directed to a provider of the utterance representation to clarify the ambiguous information, the question emerging from the analysis of the utterance representation and requesting further information from the provider.

21.   (Original) The computer program product of Claim 17, wherein the set of computer instructions comprises further instructions to generate the computer application program command based on the utterance representation and based on the analysis of the ambiguous information.

22.   Cancelled.

23.   (Original) The computer program product of Claim 17, wherein each goal-directed rule comprises a set of conditions and a set of actions, each condition consisting of a first proposition or a first script command and each action consisting of a second proposition or a second script command.

24.   (Original) The computer program product of Claim 17, wherein the response is a computer application program command based on the utterance representation.

25.   (Currently Amended) An apparatus for converting an utterance representation into a response, comprising:

means for generating a an application specific goal derived from the utterance representation, wherein the application specific goal and the utterance representation are propositions comprising attribute-object-value triples, the proposition corresponding to the utterance representation being derived from a frame representation;

means for analyzing the utterance representation based on the application specific goal and a corresponding set of goal-directed rules to identify ambiguous information in the utterance representation or to generate a subgoal, each goal-directed rule representing

a valid inference step from the goal-directed rule's condition to the application specific goal that may be taken in a domain associated with the application specific goal; and

    means for generating a response based on the analysis of the utterance representation if ambiguous information is identified.

26.   (Currently Amended) A computer program propagated signal product comprising:

    a computer usable propagated medium for converting an utterance representation into a response; and

    a set of computer program instructions embodied on the computer usable propagated medium, including instructions to:

    generate a an application specific goal derived from the utterance representation, wherein the application specific goal and the utterance representation are propositions comprising attribute-object-value triples, the proposition corresponding to the utterance representation being derived from a frame representation;

    analyze the utterance representation based on the application specific goal and a corresponding set of goal-directed rules to identify ambiguous information in the utterance representation or to generate a subgoal, each goal-directed rule representing a valid inference step from the goal-directed rule's condition to the application specific goal that may be taken in a domain associated with the application specific goal; and

    generate a response based on the analysis of the utterance representation if ambiguous information is identified.